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REPORT to the STATISTICAL SOCIETY on the *Proceedings of the Fourth Session of the INTERNATIONAL STATISTICAL CONGRESS, held in LONDON, July, 1860.* By JAMES T. HAMMACK, Esq., F.S.S., one of the General Secretaries of the Congress.

[Read before the Statistical Society of London, 18th December, 1860.]

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I.—Introduction.

SINCE the first organization of the International Statistical Congress this Society has naturally felt a deep interest in its proceedings ; and after each meeting of that body, it has been our custom to receive from one of the Fellows present on the occasion, some account of its labours. Although the Fourth Session of the Congress has recently been held in our midst, and the circumstances attending it are still fresh in the recollection of many now present who took so useful and prominent a part in the proceedings, it has seemed good to the Council of the Society not to depart from the established practice. Indeed, they consider,—and I think we shall all concur in the opinion,—that the assembly of the Congress in this metropolis must be regarded as an event full of happy omens for the cause of Statistical Science in this country, and in the highest degree interesting to English statistis. Even to those who were personally concerned, whether as active participators or merely as interested spectators, an opportunity of reviewing the work of the Congress, and of discussing its forms of procedure, will not be unacceptable; while to them and to all of us, the late gathering of men of different nations, devoted to the same pursuits, and animated by the same

motives as ourselves—men brought together by an earnest desire for guidance, instruction, and mutual support in our own department of study—cannot be a topic devoid of interest or unworthy of attention.

In complying with the invitation of the Council to lay before the Society a report on the proceedings at the recent meeting, I cannot help wishing that the task had been confided to other hands competent to do full justice to the subject. I am conscious of the disadvantage of following such eminent statisticians as Professor Levi and Mr. Samuel Brown, whose facile pens have described the work of the previous meetings of the Congress. I may venture to lay claim, however, to one essential attribute of the truthful historian, namely, a personal and familiar knowledge of all the circumstances and events to be brought under notice; the humble part which it was my privilege to fill has given me this single advantage, and I rely upon the wonted indulgence of the Society to overlook the other deficiencies of the narrator in the faithfulness of his narrative.

I will not detain you by referring to the origin of the International Statistical Congress; it is a matter of history. Nor need I particularize the objects it seeks to accomplish, or the means it adopts to attain them, as they are well known to this assembly. Suffice it to remark, that although there is a considerable analogy between the Congress and the peripatetic associations so well known in this country and on the Continent, and so useful in keeping alive an interest in science by their periodical gatherings in different localities, in one peculiar feature of its constitution, the former is essentially different. The distinctive character of the Statistical Congress is derived from the fact that it is convened and carried on under the immediate auspices of the Government of the country in which it is held; and it is formed of the representatives of different nations, whose deliberations are assisted by other statisticians specially invited to attend. The usefulness and the very existence of the Congress depend, in a great degree, upon the authority and support extended to it by the Governments of Europe.

On the occasion of the Third Session, held at Vienna, in 1857, Dr. Farr, who attended as the delegate from England (his colleague, Mr. Fonblanque, having unfortunately been prevented by an attack of illness from reaching the Austrian capital), was authorized to state that if it should be considered desirable that the Fourth Session should be held in London, Her Majesty's Government would be happy to receive the Congress. He further stated, that although its reception in London might be less brilliant than it had been in the imperial cities of Paris and Vienna, he believed it would be as cordial, and, referring to the geographical position of England as offering no obstacle, he added, in the happiest terms:—"To our

“ islands of the West representatives may readily come from the States of America, and from distant colonies, where statistics are cultivated under various circumstances. England is the centre of a large part of the civilized world. But some one says, England is divided from the Continent by the sea. Well, Gentlemen, in remote ages, Celts, Italians, Saxons, Danes, and Normans, unpalled, crossed the sea, founded colonies, and settled in England. Come, then, and visit the descendants of your ancestors: they will give you a hearty welcome.”

Such sentiments as these could not fail to meet with a hearty response; the assembly expressed the most friendly feeling towards this country, and separated with the idea that its next meeting would be held in London in 1859. This expectation, however, as to the time of reassembling was not destined to be realized, owing to various circumstances which suggested the expediency of a postponement until the present year. The Congress had hitherto met every second year, but no rule of its constitution required that its meetings should take place at regular intervals.

Last autumn Her Majesty's Government repeated the expression of their willingness to receive the Congress during the present year, and the Austrian Commission, with whom the decision rested, at once accepted the invitation. We are accustomed to hear a good deal about Routine, Red-tapeism, and Circumlocution, but these great obstructive potentates appear to have lost their reputed powers in reference to the Congress,—an innovation of the most remarkable kind, claiming not merely toleration and protection, but requiring to be organized and conducted under the direct authority of the Government. Despite the strong conservatism of the official mind, the way “not to do it” remained undiscovered in this instance.

II.—*Preliminary Arrangements.*

I should imperfectly perform the duty I have undertaken, were I to omit to notice a few of the principal matters connected with the arrangements for the reception of the Congress. Of the preliminary proceedings in connection with the previous Sessions, we necessarily know nothing; we could only judge of the effect after the raising of the curtain. By glancing at the work of preparation not presented to the public eye, we may somewhat mar that effect, but we shall acquire a better idea of the difficulty of the task, of the amount of labour and co-operation necessary to its accomplishment, and the various accessaries contributing to a successful result.

As soon as it was definitively settled that the Congress would assemble in London, it became apparent that no time was to be lost in making arrangements for its reception. It devolved upon the Board of Trade to initiate these arrangements, and the President,

Mr. Milner Gibson, at once appointed a Provisional Committee consisting of a few gentlemen connected with different public departments, with the honorary Secretaries of this Society, to act until the usual Organization Commission should be formed. This committee met in January last, and applied itself to the consideration of practical details. To facilitate business, it nominated a sub-committee, consisting of the Right Hon. W. Cowper, M.P., Mr. Fonblanque, Dr. Farr, Mr. Valpy, and myself, afterwards the Executive Committee of the Congress. After ascertaining the convenience of the expected foreign members, the meeting was fixed for the 16th July, in order that it might take place before the rising of Parliament. Invitations to the different Governments of Foreign States to nominate delegates were forwarded through our diplomatic agents abroad, and the Colonial Office undertook that representatives of the principal British Colonies should be appointed. The introduction of the latter element in the *personnel* of the Congress was a novelty, but I think no one here will question the wisdom of this arrangement which formed so useful and interesting a feature in the composition of the assembly. It was suggested by Dr. Farr and adopted by the committee solely with the desire of extending the usefulness of the labours of the Congress over as wide an area as possible, and not from any feeling of vain-glory, although England may well be proud of her colonial possessions, for she has known how to colonize, and in her great and distant provinces has spread her language and free institutions over every quarter of the globe. In most of the colonies the value of statistics is appreciated, but in some the more engrossing occupations of the colonists have led to a neglect of statistical inquiry. What better plan of teaching by example could be followed than to introduce delegates from our colonial dependencies into an assembly where they would learn something of what the old nations of Europe were doing in this respect, and meet the eminent men whose lives have been devoted to this branch of human knowledge? By the course pursued, the distant but important members of the British empire will profit by the teachings of the Congress no less than the mother country herself.

The committee conceived the idea of compiling a digest of British statistics from reports furnished by the different public offices, a work which they hoped Foreign States might be induced to imitate; but it was found impracticable, owing to the pressure of other business, to prepare the document in time, although several valuable papers were contributed.

Amongst other matters which occupied the attention of the executive officers at this time, was the selection of a suitable edifice for the meeting. That any difficulty should have been experienced on this head in the largest city in the world, where great public

buildings meet the eye on every side, is rather remarkable; but it is nevertheless true, that the First Commissioner of Public Works and Buildings, when disappointed in the expectation of obtaining the use of apartments occupied by the learned societies at Burlington House, found himself considerably embarrassed in obtaining fitting accommodation. At this juncture, the authorities of King's College, at the instance of Dr. Guy, placed the large hall and other portions of their establishment at the service of the committee; and the Councils of the Society of Antiquaries and the Geological Society having, with equal liberality, accorded the use of their apartments in Somerset House for the meetings of the Sections, all further difficulty was removed, and a *locale* rendered appropriate by its official, scientific, and educational associations, was secured.

The enlarged Commission of Organization was now formed. Consisting of about eighty noblemen and gentlemen, it included the names of distinguished members of both Houses of Parliament without distinction of party, of men eminent in science, and of others who had paid special attention to statistics. Its first duty was to determine what subjects should be included in the programme to form the basis of the deliberations of the Congress. On this all-important question a report was submitted to the Commission by Dr. Farr, and I think all who have read that interesting essay, will pronounce it to be a most valuable contribution to the literature of statistics. Tracing the progress of the science from the time of Sir W. Petty to our own day, Dr. Farr shows the importance which has been attached to it in England and all civilized states, and, defining the true province of the statist, he stands forward to repel the hostile criticism to which statistics, in common with every other science, has been exposed. The principal statistical works of this country, from the Domesday Book to our modern census, are passed in review, and the names of the principal cultivators of political, mathematical, vital, and financial statistics are honourably mentioned. The practical work and objects of the Congress are lucidly explained, and the proposal to constitute six Sections is then put forward, with the names of the gentlemen who had promised their assistance.

The plan proposed by Dr. Farr was unanimously adopted by the Commission, and as a comparatively short period of time now remained for the preparation of the programme, great exertions were necessary on the part of all concerned. It is a simple act of justice to the writers of the several portions of the programme—most of them men immersed in important professional or official engagements—to say that, in setting aside their pressing avocations to attend to the business of the Congress, they performed a generous act of self-devotion, and well deserved the special thanks which his

Royal Highness the Prince Consort desired might be conveyed to them from him for the services thus rendered to their country.

For the First Section, Mr. Leone Levi, who is well known to be one of the first who urged the necessity and importance of collecting Judicial Statistics in this country, undertook to write the portion of the programme on Civil and Criminal Statistics; and Mr. Hill Williams prepared a paper on the Statistics of the Subdivisions, Transfers, and Burdens of Real Property. The papers for the Second Section (Sanitary Statistics), were written by Miss Florence Nightingale, Dr. Sutherland, and Dr. Farr. For the Third Section (Industrial Statistics), papers were prepared by Mr. Caird, M.P., and Mr. Donnelly, Registrar-General of Ireland, on Agricultural Statistics; and by Mr. R. Hunt, on the Statistics of Mineral Produce and of Mining. The principal portion of the programme for the Fourth Section (Commercial Statistics), was prepared by Mr. Newmarch, on Methods of Investigation as regards Statistics of Prices and Wages in the principal Trades,—a valuable paper, which I am glad to observe enriches the pages of the last number of the Society's *Journal*; Mr. Crawford contributed a short paper on the Statistics of Banks. For the Fifth Section, which embraced the Census, and Army and Navy Statistics, the papers were prepared by Dr. Farr and myself on the first subject; and by Sir R. M. Bromley, Dr. Bryson, Dr. Balfour, Mr. Hodge, and Dr. Sutherland, on Naval and Military Statistics. Lastly, for the Sixth Section, which took a somewhat wide range of subjects, the papers were by Dr. Guy, on Statistical Methods and Signs; by Mr. Winter Jones, on the Statistics of Literature; by Mr. Samuel Brown, on Statistical Units; by Mr. Valpy, on International Statistical Abstracts; and by Admiral Fitzroy, on Meteorological Observation. The mere mention of several of these names is a sufficient guarantee for the ability with which most of the subjects were treated.

But the task of preparing the programme was not finished even when all these papers were written and seen through the press, forming, when printed, a quarto volume of more than 200 pages. For the convenience of the foreign members of the Congress, it was necessary to provide an edition of the programme in *French*, and on a short notice it was not easy to find persons competent to translate papers abounding in technical expressions into that language. The Committee were fortunate, however, in obtaining the assistance of competent translators in London, and some portion of the work was performed by M. Maurice Block, of Paris. At the establishment of Messrs. Eyre and Spottiswoode, the Queen's Printers, the printing of the French edition was very creditably performed, although the compositors and others employed were exclusively Englishmen. It will readily be conceived that a programme composed of twenty-four

distinct papers, written by twenty persons, and printed in two languages, occupied a considerable time in preparing; and notwithstanding the great exertions of the editor, Dr. Farr, and the most effective co-operation on the part of the writers, it will scarcely be a matter of surprise that it was completed only just in time for the meeting of the Congress.

But the disadvantage which no doubt resulted from the unavoidable delay attending the production of the programme, was, in a great degree, atoned for by the plan adopted of stating at the end of each paper the several propositions or resolutions to be discussed, the rest of the paper being regarded as merely introductory. These propositions were referred to Committees of Sections, consisting of statist and others specially conversant with the subjects, by whom they were examined, and modified where necessary. The Presidents and Vice-Presidents of the Sectional Committees which were thus formed on the plan adopted by the British Association and other societies, were afterwards chosen to preside over the Sections of the Congress, and the Secretaries also, in like manner, continued their efficient services.*

III.—*Proceedings of the Congress.*

The course of events has now brought us to the opening of the Congress, which took place on Monday, July 16th, 1860. Most of the official delegates had arrived in London during the previous week. Twenty-four different countries, including the principal States of Europe, the United States of America, and Brazil, were represented; and in addition representatives attended for thirteen of the most important British Colonies. The delegates appointed for Sardinia and for Canada unfortunately failed to arrive in time. In the large hall at King's College were assembled, besides the official delegates, several of the foreign Ambassadors and Ministers, the Secretary of State for Foreign Affairs, the President of the Board of Trade and other Members of the Government, Lord Brougham, Earl Stanhope, the Earl of Shaftesbury, and other noble lords, several Members of the House of Commons, and about 400 gentlemen, including the heads of the principal learned and scientific societies of the metropolis, who had been specially invited to take part in the proceedings of the Congress. The business of appointing the officers and of agreeing to rules for the regulation of the assembly having been disposed of at a preliminary meeting, His Royal Highness the Prince Consort took the chair, as President, at 4 P.M., and opened the Congress with an inaugural address, no less remarkable for its

* Mr. T. Michell, F.R.G.S., now of the British Legation of St. Petersburg, and Mr. W. Clode, of the Registrar General's Office, Somerset House, besides acting as Secretaries of Sections, rendered valuable assistance to the Executive in carrying out the arrangements.

eloquence and philosophic spirit, than for its eminently practical character and perfect suitability to the occasion. This admirable address has been printed in our *Journal*. The proposal of Lord Brougham that the meeting should give vent to its feelings of gratitude and respect to his Royal Highness for the signal service rendered by him to statistical science, was received with enthusiasm.

On the second day (Tuesday), the six Sections met at 10 A.M., in their respective rooms, and having elected their officers, proceeded to the discussion of the portions of the programme referred to them. His Royal Highness the Prince President visited each of the Sections during the morning, and evinced a lively interest in the proceedings. The General Meeting assembled at 2 P.M., the Right Hon. W. Cowper, M.P., Vice-President, in the chair. The reception of oral reports of the Foreign Delegates on the progress of statistics in their respective countries since the last meeting of the Congress, formed the principal business of the day. As these reports, which might be made either in French or English, are full of interest, I propose to submit a brief abstract of the most important of them.

HIS EXCELLENCY BARON CZÆRNIG, Delegate for Austria, and President of the Vienna meeting of the Congress, referred to the impulse given to statistical inquiry in connection with recent reforms in that empire, and described the labours of the department under his direction. In 1857 a census of the whole of the Austrian empire had been taken on a uniform plan, in conformity with the recommendations of the Congress. Reports on the statistics of the subdivisions of land (by Baron Czærnig himself), on several branches of industry, on the mercantile marine, on the state railways, on the hospitals of Vienna, and on indirect taxation, had been published. Other works were in progress, some of which had been interrupted by that potent enemy of science—war.

DR. VON HERMANN, Delegate for Bavaria, briefly described the progress of statistics in that kingdom. A special census had been taken of the deaf-and-dumb, the blind, and the insane, and an important work on suicides had been prepared, together with special reports on railways, postal service, mines, and salt works. The cadastre was nearly completed; 26,000 cadastral maps were on sale, and every landed proprietor in Bavaria could obtain an exact map of his estate for *sixpence*. Dr. von Hermann exhibited some tables of mortality prepared on a new plan, the deaths in each year of age being compared with the births of the year in which the deceased were born. A curious result had been evolved, namely, that when the births were most numerous, the vitality of the generation was greatest.

M. QUETELET, Delegate for Belgium, and President of the First Session of the Congress, read an interesting statement prepared by

M. Heuschling, who was unable to be present, describing the recent labours of the Belgian Central Statistical Commission. Its publications had embraced Electoral Statistics, Statistics of the deaf-and-dumb and blind, of the militia, of the finances of the communes, &c. Of the general census of 1856, only a preliminary account had been published; the detailed tables, however, were in the press. Agricultural statistics had been collected in conjunction with the census. The record of the causes of death, although still imperfect, had been found useful. A royal decree of May last, had offered a prize of 20,000 francs to the best works on the progress of Belgium since 1830.

M. DAVID, Delegate for Denmark, noticed the works of the Danish Board of Statistics, prepared under his direction, on various subjects, including Commercial Statistics, Criminal Statistics for the fifteen years 1845-54, births, deaths, and marriages during the same period, and suicides during the years 1845-56. Concerning suicides, M. David stated that in Denmark the proportion to the population (26·4 annually to 100,000 living) was more than twice as great as in France, Prussia, and Norway, and more than threefold as compared with England, Belgium, and Sweden; but he ascribed these differences mainly to the fact of the returns in other countries being less accurate than those of Denmark, where, however, the propensity to suicide unhappily prevailed in a high degree.

DR. ASHER, Delegate for Hamburg, Bremen, and Lubeck, gave an account of the statistical documents drawn up under official authority, chiefly relating to the commerce and consumption of the Hanse Towns.

PROFESSOR WAPPÄUS, of Hanover, reported on the proceedings of the Statistical Bureau of that kingdom. In addition to the regular publications, new volumes had been issued on Criminal Statistics—the first report of the kind—and on Agrarian Statistics. From the latter it appeared that the redemptions of seigniorial rights and charges had been so numerous, that by far the greater portion of the landed property is now in the possession of small freeholders. Professor Wappäus dwelt on the importance of the Statistical Departments in the German States acting in concert, the relations between the States being too intimate to admit of separate action with success. We may hope that the attainment of this object will be amongst the other fruits of the Congress.

DR. ACKERSDYCK, Delegate for Holland, said that the system of mystery long maintained by the Government of the Netherlands, had been completely abandoned, and important statistical documents were now published. Since 1851 each province had had its Statistical Bureau, and a Central Commission had been established recently in compliance with the suggestion of the Congress. It was an inde-

pendent department, empowered to call for returns from all the branches of administration, and to control all the official statistics.

M. DE BAUMHAUER, the other Delegate for Holland, presented an elaborate paper, affording a comparative view of the penal legislation of Saxony, France, Belgium, and the Netherlands, and reported amongst other matters that a record of the causes of death had been commenced, and that the task of analyzing the census returns of 1859 was in progress in the provincial offices.

BARON MALTZAHN, of Mecklenburg-Schwerin, reported that the statistical department in that duchy had continued its investigations respecting territorial subdivisions, the climate, the movement of the population, the mercantile marine, savings' banks, postal administration, &c. It had also drawn up and published tables showing the amount of game and wild animals killed in the years 1849-56.

PROFESSOR DAA, Delegate for Norway, described the nature of the statistical information collected at the last census of that country in 1855, and also of that furnished by the various branches of the public service. Sanitary statistics had received considerable attention, and the classification of the causes of death had established several important facts; amongst others, that the remarkable disease elephantiasis, although it had spread amongst the fishing districts and along the coasts, was rarely found in the interior, and was by no means so fatal as had generally been believed. Mental diseases were, however, more prevalent in Norway than in most other countries, and the returns on the subject were peculiarly valuable, because from the sparseness of the population and the fact of people usually remaining where they were born, the influence of hereditary circumstances could readily be traced.

DR. WERNADSKI, Delegate for Russia, stated that the Government of that empire had taken great interest in the labours and recommendations of the Congress, and had established in 1858 a Central Statistical Commission, composed of members representing the different public departments. In order to secure a solid basis for the collection of the returns, local superintendents of statistics had been appointed in the provinces. M. de Bouschen had been charged with the special duty of visiting the different countries of Europe for the purpose of studying the purely practical part of statistical science. Preparations were in active progress for the forthcoming census of Russia, to be taken on the principles adopted by the Congress. The operation of numbering the people of this vast empire was one of no ordinary difficulty, and the first step was to obtain a complete list of inhabited places, since, owing to the migrations of the peasants, and the frequent fires in the villages composed of houses of wood, these were by no means fixed. The delegate described the statistical reports which had been published, including

one by M. Troinitski on the serfs, furnishing materials of the greatest value in carrying out the work of emancipation. Exact information had been collected with respect to the distribution of real property and the value of its produce. The War Minister had fifty-six staff officers in the provinces reporting on the military resources of the country; the reports, filling fifty or sixty volumes, were corrected periodically. Dr. Wernadski's statement, which deserves a more extended notice, abundantly proves the popularity of statistics in Russia.

M. HOFF, Delegate for the Saxon Duchies, gave a brief account of the statistical works published since the previous Congress, including the returns of the census of Saxe Meiningen, taken in 1858. This delegate, whose name is so well known in connection with the Gotha Life Insurance Company, presented some valuable papers, prepared by himself, on the operations and results of the life insurance companies in Germany.

M. G. VOGT (Switzerland), announced the creation, in June last, of a Federal Statistical Bureau, under the direction of the Ministry of the Interior at Berne. Conformably with the recommendations of the Congress, the census, heretofore taken every twenty years, was to be taken in December this year, and to be repeated decennially. The delegate referred in suitable terms to the lamented deaths of the eminent Swiss statist, M. Franscini and Dr. Marc d'Espine. We must all feel that the loss of such men is not confined to the country to which they belonged.

AGOP EFFENDI, Delegate for Turkey, stated that although no statistical works had been published by the Ottoman Government, important official returns existed as the result of the labours of the Statistical Bureau founded by the Sultan Suleiman. The 159 provinces had each a superintendent of statistics, with assistants by whom reports were annually prepared on the births, deaths, number of travellers, the sanitary service, transfers of property, the losses by fire and epizootics, and on other matters.—It is to be regretted that the Turkish Government, which has been twice represented at the Congress, and has evinced a strong desire to profit by its teachings, has not followed the example of other States in publishing the information, or at least the principal results, collected through the extensive agency described by the delegate.

On the third day the official delegates continued their reports. The Brazilian Minister in London, the Commander de CARVALHO MOREIRA, representing Brazil, after referring to the importance attached to social phenomena as displayed by statistics, under a Parliamentary Government like that of Brazil, described the reports made by each of the six Ministries—of the Interior, Finance, Justice, Marine, War, and Foreign Affairs—at the commencement of each

session. These reports placed before the two Chambers a complete view of the progress of the empire, as exhibited by statistical tables carefully and systematically arranged. In separating from the parent state thirty-eight years ago, Brazil had found itself in the enjoyment of all the elements of independence, but had hitherto neglected to count the numbers of the people,—nations, like individuals, the delegate well observed, being too apt to leave untold the wealth of which they have the uncontested possession,—but arrangements were now in progress for taking the first census, a work attended with unusual difficulties in the vast country extending over the basin of the Amazon. The Statistical Society founded at Rio de Janeiro, in 1854, had collected materials for the general statistics of the empire; it had branches in the provinces, and published a quarterly journal.

M. LEGOYT, Delegate for France, described the publications of the Statistical Department in Paris. He invited special attention to the financial statistics of France, remarkable alike for their complete information and perfect good faith. The budget he described as the key to all the institutions of the empire—administrative, financial, political, military, religious, and civil—in a word, the dictionary of France. The subsequent reports published by each of the public departments gave all the details of the expenditure duly verified. A precise account of the army and navy, men, horses, ships, arsenals, projectiles, arms of every description, was annually published; the elements of the armed force of the country being thus made known to the world with a degree of minuteness and fidelity unusual in other States. Amongst the most important statistical reports recently published, were volumes on the births, marriages, and deaths, 1855-57, and on the census of 1856. A report on “*L’Assistance Publique*,” comprising 1,500 hospitals and asylums, 12,000 charitable institutions (*bureaux de bienfaisance*), and many other similar establishments, for the years 1842-54, was published in 1858. M. Legoyt referred to the statistical labours of other branches of the public service, every one of which, he said, published documents affording full information concerning its operations.

DR. ENGEL, Delegate for Prussia, and formerly Director of the Statistical Bureau of Saxony, after paying a just tribute to the memory of his distinguished predecessor, M. Dieterici, whose sudden death occurred last year, described the circumstances under which unexpectedly, and without solicitation, he had been placed at the head of the Statistical Department at Berlin. The bureau was created in 1805, and for more than fifty years had zealously prosecuted its work. A Central Commission was shortly to be created. In no country in Europe, except in England, perhaps, was the demand for statistical information on the part of the

Government, the two Chambers, and the public, greater than in Prussia.

PROFESSOR SCHUBERT, the other Prussian Delegate, and a Member of the Chamber, confirmed the statement of Dr. Engel as to the appreciation of statistics by the Government and the two Chambers, adding that a constitutional system like that of Prussia demanded the most profound and extensive application of statistical science, in order that all political action might be guided or illustrated by its light.

DR. BERG, Delegate for Sweden, announced the creation of a Central Statistical Commission at Stockholm in 1858. It consisted of members of the different public departments, and had exclusive charge of the statistics of population, while it devised all the forms in use in other branches of the service. The registration of births, deaths, and marriages, was in future to be carried out on the model of the English system, and the causes of death were to be recorded on the principles approved by the Congress. The delegate noticed some facts respecting the diminution of crime, the reduced production of distilled spirits, and other results derived from the systematic collection of facts under the departments he so ably directs.—The Scandinavians are good statisticians, and in Sweden, where the value of statistics was early recognized, the science is still cultivated with unabated ardour.

COUNT RIPALDA (Spain), adverted to the formation, in 1856, of a Central Statistical Commission at Madrid, with branch commissions in the departments, through the agency of which a nearly exact census had been taken in 1857.

DR. JARVIS, President of the American Statistical Association, communicated a valuable statement respecting the Vital Statistics of the United States.

The delegates for the British Colonies then proceeded to make their reports, which occupied the general meeting during the remainder of the third day and during the greater part of the fourth. Of these statements it would be impossible to give even the most meagre analysis within the limits of the present paper, especially as they present rather a statistical account of the several colonies than an account of the organization of the colonial statistics. A bare mention of the names of the delegates, most of them distinguished colonists who had been Members of Council, or had filled other important posts in their respective colonies, must suffice. The Australasian Colonies were represented by eight delegates, namely, New South Wales by Sir Stuart Donaldson, Mr. E. Hamilton, and Mr. J. Macarthur; Queensland by Mr. Marsh, M.P.; Victoria by Mr. W. Westgarth; South Australia by Mr. E. Stephens; Tasmania by Mr. J. A. Youl; and New Zealand by Mr. J. E. Fitzgerald. These

gentlemen made a joint report, prepared with great care and ability. Mr. Walker, Secretary to the Government in British Guiana, reported on that colony; Mr. W. Field on the Cape Colony; Sir Charles MacCarthy, Governor of Ceylon, on that island; Mr. S. Cave, M.P., on Jamaica and Barbadoes; Mr. G. Fropier on the Mauritius; and Mr. Drummond Woolf on the Ionian Islands. In the absence of a delegate for India, Mr. Hornidge, the head of the Statistical Department in the India Office, presented an able digest of the Statistics of British India.

DR. FARR then briefly noticed the steps taken in Great Britain to give effect to the previous recommendations of the Congress. In relation to Judicial and Industrial Statistics, some advance had been made, and an extended educational inquiry was in progress under a royal commission. Attention had been called to the great defect in our finance accounts and in the estimates laid before Parliament, namely, the omission to show the quantities or values of the "stock in hand" at the beginning and end of every year. The defect had been admitted by our ablest financial officers, and Dr. Farr hoped the Congress, at its next meeting, would learn that it had been removed, as well as the reproach that Ireland was the only part of Europe without a registration of births and deaths.

MR. VALPY followed with a few observations on the changes and additions made in the publications of the Statistical Department of the Board of Trade.

Thus from the mouths of the representatives of the principal civilized nations of the world, the Congress learnt, and we learn also, the general progress of statistical inquiry, and the estimation in which this branch of knowledge is held. Countries far behind others in many respects, not only appreciate its value, but desire to be directed by its light; and abundant evidence is afforded that the seeds sown by the Congress have already yielded a goodly harvest.

At this stage of the proceedings, our valuable hon. secretary, Mr. Newmarch, having been invited to give some account of the work of this Society, said, that while its position was unofficial and perfectly independent, the Society might claim the merit of having originated the systematic cultivation of statistics in this country, the success of its efforts being proved by its present vigorous condition. He then noticed the different classes of subjects which had from time to time more especially engaged the attention of the Society, and concluded his statement by remarking that so long as its labours were useful, it would obtain the support of the intelligent public; and when it ceased to command that support by its own intrinsic merit, its mission would be at an end,—an observation pronounced by Lord Brougham, the chairman of the day, to be "correct, sensible, and judicious."

After a special report from M. Quetelet on a plan for publishing in each country, and in the same form, a general table embracing all the principal statistical facts as a basis for the comparative statistics of nations, the important business of receiving reports of the decisions arrived at in the several Sections occupied the attention of the general meeting. These reports were made, usually by different reporters, both in English and French, and the resolutions they embodied were, except in two or three instances, adopted by the Congress. It appeared to be understood that the conclusions arrived at in the Sections were the result of more deliberate discussion than could possibly take place in the general assembly, and moreover, that the decisions were occasionally to be regarded as compromises. To look for perfect unanimity amongst the representatives of so many nationalities, or even amongst any considerable number of scientific men, including of course many mere theorists, of any one nation, would be Utopian; and no wise statist will altogether reject materials which may in any way serve to strengthen the foundations of the fabric he desires to raise, when others less rough and crude cannot be obtained.

The Sections met on each day usually at 10 A.M., and sat until 1 P.M. By a judicious division of the time set apart for their deliberations, they succeeded in examining the several parts of the programme, and in two or three instances other papers submitted by individual members were discussed, and resolutions agreed to upon them. The real work—the deliberative work—of the Congress was done in the Sections; and it is a matter of regret to me that my space will not allow me even to name a few of the gentlemen whose judgment, ability, and practical acquaintance with the different subjects, contributed in so eminent a degree to the interest of the discussions, and to the adoption of sound views with reference to the statistical bearings of the several questions dealt with. Nor would these names, could they be mentioned, be restricted to those of our own countrymen, for the great assistance rendered by the foreign members of the Congress in every Section was conspicuous to all. In obtaining the co-operation of the distinguished noblemen and gentlemen who acted as Presidents of Sections, the Executive Committee were most fortunate. Who could so fitly preside over the Judicial Section as Lord Brougham? or over the Sanitary Section as the Earl of Shaftesbury? Lord Stanley was unfortunately prevented from being in London to fill the chair in the Industrial Section, but was ably represented by the Vice-President, Sir Roderick Murchison. Mr. Nassau Senior, was the efficient President of the Commercial Section; and Earl Stanhope presided over the Section charged with the consideration of the

Census and Military and Naval Statistics with perfect urbanity and admirable tact, conducting the proceedings for the most part in French, in deference to the numerous foreign delegates attending the Section. M. Quetelet, as President, with the Belgian Minister, Mr. Monckton Milnes, M.P., and Mr. James Heywood, as Vice-Presidents, conducted the discussions on the somewhat varied list of subjects treated by the Sixth Section with very satisfactory results. The Presidents received valuable aid from the Secretaries of Sections—all of them able practical men of business, to whom the Executive also are under deep obligations for their services, not only in recording the proceedings in their respective Sections, but also in preparing the shorthand writer's notes for publication in the General Report.

A concise statement of the reports brought up from the Sections may afford some idea of the nature of their labours. From the First Section, Lord Brougham and Mr. Leone Levi brought up the report on Judicial Statistics; and the Right Hon. Joseph Napier reported resolutions on the subject of the Transfers of Real Property. From the Second Section, Dr. McWilliam brought up the report on Sanitary Statistics, given in French by Dr. Berg. Sir Roderick Murchison reported the resolutions adopted by the Third Section on the Statistics of Agriculture, and of Mines and Metallurgical Industry. From the Fourth Section, Mr. Newmarch reported on the Statistics of Prices and Wages, and the Rev. Professor Rogers on the Statistics of Banks; M. Legoyt kindly presented a French version of the resolutions. Mr. Hendriks brought up from the Fifth Section the report on the Census and on the Occupations of the People, Sir R. Bromley on Naval Statistics, Mr. Hodge on Military Statistics, and Dr. Balfour on the Vital Statistics of the Army; Dr. Boudin reported in French upon the last subject, and M. Legoyt upon all the others. From the Sixth Section, Mr. Monckton Milnes, M.P., reported on the Statistics of Literature, Dr. Guy on Statistical Methods and Signs, and Mr. J. Heywood on Statistical Units; on the last subject, M. Corr Vander Maeren, of Brussels, was the reporter in French. The Second Section (Sanitary) and the Sixth were most numerous attended.

On the 21st July, after the conclusion of the reports from the Sections, Baron Cœrnig, referring to Dr. Farr's words at Vienna, said that he had told them the truth, but not the whole truth, for they had found more than a cordial welcome—they had been received as brothers; a national interest had been felt in their proceedings, and an almost familiar reception had been accorded to them in the highest society in England. He then invited the meeting to offer the expression of its gratitude to the Prince Consort for his inaugural address, to Her Majesty's Government, and to Lord

Brougham and the other Presidents of Sections. The proposition was seconded by Dr. Wernadski, who adverted to the fact that Russia had furnished a larger contingent of foreign members than any other state. The Right Hon. W. Cowper returned thanks on the part of the Government, and expressed their great satisfaction in having had the honour of receiving the distinguished representatives of so many countries.

M. Quetelet, in a speech full of kindly sentiments, then proposed a vote of thanks to the Organization Commission and Executive Officers of the Congress, and Lord Ebrington gracefully acknowledged the compliment. M. Legoyt, in the name of the foreign delegates, expressed in eloquent language their sense of the kindness and hospitality they had experienced during their stay in England.

Before the close of the meeting, Mr. Cowper stated, amidst general applause, that he believed it would be agreeable to the members of the Congress if their next meeting were held at Berlin, a capital so renowned for its cultivation and appreciation of science. Dr. Engel and Professor Schubert, the Prussian delegates, replied that although they had not been instructed to invite the Congress, they entertained no doubt that the Prussian Government and the city of Berlin would do their utmost to give the Congress a friendly reception. The proceedings of the Fourth Session of the International Statistical Congress were then brought to a close.

I have thus briefly described the *business* of the week, but it is impossible to close this imperfect report without noticing the hospitalities and attentions which were received by our distinguished visitors. The social features of the Congress are not amongst the least efficacious of its means of promoting the cause of statistical science. At these réunions, the intercourse of men of high attainments and enlightened minds, who are thus afforded an opportunity of cultivating friendly relations, cannot fail to be advantageous to the maintenance of peace and good-will among the nations, as well as favourable to the march of social improvement. This intercourse was promoted by a pleasing succession of hospitable attentions. His Royal Highness the Prince Consort, in the absence of the Queen, received the foreign and colonial delegates at Buckingham Palace. They were invited to the Mansion House by the Lord Mayor to meet Her Majesty's Ministers; and this Society, in conjunction with the Institute of Actuaries and the Actuaries Club, entertained them at a banquet at which nearly 200 persons were present, under the able presidency of Colonel Sykes. Of the hospitality of a more private character, mention must be made of the kind receptions given to them by Viscountess Palmerston, Mrs. Milner Gibson,

Mrs. Sidney Herbert, Miss Coutts, Mr. James Heywood, and the Treasurer of St. Bartholomew's Hospital; and of their entertainment by Lord Ebrington, Miss Florence Nightingale, Mr. Henry Bohn, Mr. Valpy, Mr. Hodge, and others. A public *déjeuner* at the Crystal Palace, when Earl Stanhope occupied the chair, supported by about one hundred and fifty members, brought these social proceedings to a graceful termination.

Although the number of members attending the Congress is not a criterion of its success, the fact that the attendance was larger than at any former meeting is encouraging. Nearly six hundred members inscribed their names as actually present during some part of the proceedings, and of this number ninety were foreigners—thus maintaining the international character of the assembly. That the discussions in the Sections were as earnest, and the solutions of the different questions as satisfactory, as upon any previous occasion; was admitted on all hands; and not only those to whom the inherent difficulties of the undertaking are well known, but other competent judges have pronounced the meeting an undoubted success.

It is not too much to say that the credit of the Government and the country were involved in the result. That the Congress, like all other human institutions, was by no means free from imperfections, those entrusted with the conduct of the arrangements were ready to admit. But on the whole it unquestionably attained a large measure of success; and this result was due to various instrumentalities, and to the co-operation of many intelligent men of this and other countries.

For the cordial reception given to the Congress by Her Majesty's Government, no less than for his personal courtesy to the official delegates, the members could not but feel their obligation to Lord Palmerston, whose enlightened mind appreciated the objects of the meeting and the advantages likely to arise from its being held in this country under the auspices of the Government. In like manner the President of the Board of Trade, Mr. Milner Gibson, rendered all the assistance in his power at every stage of the proceedings. Nor should the valuable assistance rendered by Mr. Cowper, both as a member of the Government and in many other ways, be allowed to pass unnoticed. From the first, when filling the office of Vice-President of the Board of Trade, that right honourable gentleman entered warmly into the proposal that the Fourth Session of the Congress should be held in London, and it was at his instance that Her Majesty's Government were induced to send the invitation to Vienna. As Vice-President of the Organization Commission, and Chairman of the Executive Committee, he gave his personal attention to the details of the business, notwithstanding the exacting demands of his parliamentary and official duties, and to the present

time he has continued to take the most active interest in all the concerns of the Congress.

Where all were animated with the same good-will and desire to be useful, it may seem invidious to make special mention of the assistance rendered by particular delegates: but the services of Baron Czoernig, M. Quetelet, Dr. Engel, Dr. Berg, M. Visschers, and M. Legoyt, should not be passed over in silence. M. Legoyt, besides offering many excellent suggestions on the preparation of the programme (amongst others, that military and naval statistics should be included in it), undertook a great deal of hard work during the busy week of the Congress. He prepared and submitted to the general meeting able reports on *two* of the Sections, and on several occasions was the eloquent exponent of the sentiments of the foreign delegates. Nor did his valuable assistance terminate with the meeting; he has since bestowed no small amount of labour upon the revision of the portion of the General Report of the Congress in the French language—a self-imposed task which the editor, Dr. Farr, cannot fail to appreciate.

That our valued Honorary Secretary, Dr. Guy, should have displayed his accustomed energy and peculiar talent for organization upon this occasion is precisely what might have been expected. His courteous attentions, with which the foreign members especially were so charmed, and his signal services at every stage of the proceedings, were conspicuous to all; and if any proof were wanting of his zeal, might we not point to the extremely interesting memorial of the meeting now before us,* and which I rejoice to learn has become the property of the Society, so that it will continue to adorn this room. You have already heard that through his good offices, the Committee, in their hour of need, obtained the advantage of excellent accommodation at King's College, where, as Mr. Cowper truly observed in publicly thanking the authorities of that institution "Dr. Guy seemed to be almost ubiquitous, for whenever anything was wanted Dr. Guy was there, and whenever he was there, everything went smoothly and harmoniously."

Upon the services of Mr. Valpy, as one of the General Secretaries, it is unnecessary for me to dwell. From his position at the Board of Trade, it fell to his lot to perform very responsible duties connected with the organization of the Congress; and his exertions were indefatigable to promote its efficiency and success.

As to the share in the arrangements and proceedings taken by another member of the executive, who is completely identified with the Congress—the mainspring, indeed, of the whole machine—I

* Referring to a collection of photographic portraits of the principal members of the Congress.

know that I should best consult his wishes by remaining silent. But I must be permitted to observe that if any advantages to statistical science in this country, any results beneficial to the well-being of society, any better appreciation of our work and character by our distinguished visitors, should flow from the late gathering in this metropolis, they will be due to the persevering energy, arduous labours, and admirable sagacity of our esteemed Treasurer, Dr. FARR.

With a supply of materials somewhat embarrassing from its abundance, I have condensed my report as much as possible, in order to afford time this evening for an ample discussion of the subject. The order of procedure at the late Session followed, with little variation, that adopted at the previous meetings; but it is by no means certain that greater efficiency in future might not be attained by some judicious changes in the arrangements. An opportunity for discussing the practical details now presents itself, and any useful suggestions which may be offered will doubtless be considered before the anticipated meeting at Berlin. I am sure the desire of the staunchest adherents of the Congress would be rather to provoke criticism than to discourage it. There may be a high appreciation of its design and labours, without unqualified eulogy.

By the press the notices of the Congress have been for the most part confined to a description of the proceedings. The only important exceptions of which I am aware, are articles which have appeared in the *Journal des Economistes*, Paris, from the pen of M. Legoyt, and in the *Economist*, London newspaper, under the signature "N.," reprinted in the *Statistical Journal* for September last. The critical observations in these articles are offered in a friendly spirit, and it may be useful just to mention the principal heads. M. Legoyt says, that the programme, like those of Paris and Vienna, was not prepared, in a sufficient degree, from an international point of view; that it reproduced matters already treated at previous Sessions; that the subjects embraced in it were too extensive, and that the Sections were consequently too numerous. He considers the lateness of the distribution of the programme a serious obstacle to its profitable discussion, although he frankly owns that the same fault was committed in Paris. He remarks on the adoption of the reports from the Sections almost without discussion, and suggests that the delegates should examine each evening the propositions submitted during the day, and take measures for securing their final adoption or rejection by the Congress. M. Legoyt further recommends that the publication of the General Report should be immediate, that it should include a full account of the proceedings in the Sections, and that before the close of each future meeting, a Committee of Delegates should be formed to communicate with

the different Governments and to use all its influence to procure the application of the decisions of the Congress.

The writer in the *Economist*, whose style, apart from his initial "N.," we shall have no difficulty in recognizing as that of an important officer of this Society,* while highly approving of the "sectional principle," in conjunction with a carefully prepared programme presenting to each Section, in a comprehensive form, the questions referred to it, considers that the decisions of the Sections, instead of being submitted to the general body of the members for adoption or rejection, should be final. He objects to the reception of the reports of the delegates on the progress of statistical inquiry in their respective countries, as wasting time; and I am sorry for this, because I look upon these brief statements made by the delegates in the general assembly before the reports from the Sections are ready, as instructive and valuable in many respects, and I have occupied the time of the Society in noticing them in the earlier part of this paper. Another defect, in his opinion, "is the "offensive frequency of mutual compliments." Lastly, he points out the grave disadvantages resulting from the organization being practically dissolved during the intervals between the meetings of the Congress, and proposes the establishment of a permanent Central Committee at Brussels or elsewhere.

I do not say that these criticisms are in every respect unjust; they deserve consideration; but I confidently believe that in its results the Fourth Session of the International Statistical Congress will fulfil the aspiration of His Royal Highness the President, expressed in these words:—"Happy and proud indeed should I feel if this noble gathering should be enabled to lay the "solid foundation of an edifice, necessary slow of construction, and "requiring for generations to come laborious and persevering exertion; intended as it is for the promotion of human happiness by "leading to the discovery of those eternal laws upon which that "universal happiness is dependent."

* During the discussion which followed the reading of this paper, Mr. Newmarch avowed himself as the writer of the articles referred to—(*J. T. H.*)